SOVIET OPERATIONAL INTELLIGENCE

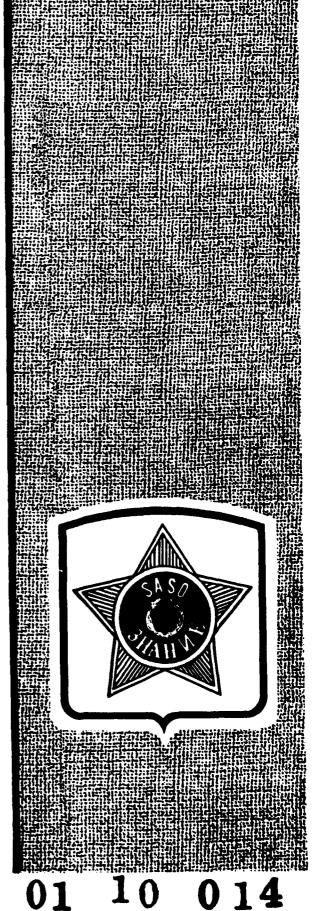
IN THE KURSK OPERATION

(JULY 1943)

SOVIET **ARMY STUDIES**

Fort Leavenworth, Kansas

AD-A216 373



90

		REPORT D	OCUMENTATIO	N PAGE			Form Approved OMB No. 0704-0188
1	ECURITY CLASS	IFICATION		16. RESTRICTIVE	MARKINGS		
	CLASSIFICATIO	N AUTHORITY			AVAILABILITY OF		
2b. DECLASSIF	ICATION / DOW	NGRADING SCHEDU	LE	Unclassif	ied/Unlimi	tea	
4. PERFORMIN	IG ORGANIZAT	ON REPORT NUMBE	R(S)	5. MONITORING	ORGANIZATION RE	PORT NU	MBER(S)
		organization tudies Offic	6b. OFFICE SYMBOL (If applicable) :e ATZL: SAS	7a. NAME OF MO	ONITORING ORGAN	NIZATION	
HQ CAC	SAS	d ZIP Code)	27-5015	7b. ADDRESS (Cit	y, State, and ZIP C	iode)	
ORGANIZA	FUNDING/SPO ATION ned Arms		8b. OFFICE SYMBOL (If applicable) CAC	9. PROCUREMENT	I INSTRUMENT IDE	NTIFICATI	ON NUMBER
8c. ADDRESS (City, State, and			10. SOURCE OF F	UNDING NUMBER	s	
CAC Ft. L	eavenwor	th, KS 660	27	PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
Sov	ude Security CI IET OP ULY 199	ERATIONAL	INTELLIGE	UCE IN T	THE KURS	SK O	PERATION
12. PERSONAL	LANTZ	DAVID M.					
13a. TYPE OF Fina	REPORT /	13b. TIME CO		14. DATE OF REPO	RT (Year, Month, L 146-45 T	Day) 15.	PAGE COUNT
16. SUPPLEME	NTARY NOTAT	ION					
17.	COSATI	CODES	18. SUBJECT TERMS (Continue on reverse	e if necessary and	identify b	
FIELD	GROUP	SUB-GROUP	INTELLIGENC	E DECEP	TION; KUI	(3/C)	SOVIET BRMY
19. ABSTRACT	(Continue on	reverse if necessary	and identify by block n	umber)			
:							
					_		İ
					•.		
	ION/AVAILABI SIFIED/UNLIMITI	LITY OF ABSTRACT ED SAME AS R	PT Grane	B .	CURITY CLASSIFICA	ATION	
	RESPONSIBLE Tim Sa	INDIVIDUAL	PT. DTIC USERS	22b. TELEPHONE (1 913 684-4		l l	FICE SYMBOL
	_iiii Sa	11.4		<u> </u>		I AT	II: SAS

SOVIET OPERATIONAL INTELLIGENCE IN THE KURSK OPERATION (July 1943)

by

Colonel David M. Glantz Soviet Army Studies Office Combined Arms Center Fort Leavenworth, Kansas

August, 1988

This paper was delivered at the 30th International Symposium for Military History [Internationale Fachtagung Wehrgeschichte] held in Nurnberg, FRG from 3-7 October 1988. The symposium was sponsored by the Militargeschichtliches Forschungsamt, Freiburg im Breisgau, FRG. The views expressed here are those of the Soviet Army Studies Office.

They should not necessarily be construed as validated threat doctrine.

This summary paper is derived from a more detailed study with the same title available in manuscript copy from the Soviet Army Studies Office, Ft. Leavenworth, Kansas.



Acces	sion F	OF		Č
NTIS	GRALI			
DTIC	TAB		ā	
Unann	ounced			
Justi	fication	on		
Ву				
Distr	ibution	a/		
Avai	lab1111	ty C	odes	
	Avail	and,	or	
Dist	Spec	ial		
. 1		1		
V V		ļ		
r				

On 22 June 1941, the German Army unleashed a devastating surprise attack on the Soviet Union. This attack heavily damaged the Red Army and ultimately shook the foundations of the Soviet state. The June disaster was, in part, the product of a Soviet strategic intelligence failure. In early September 1941, Guderian's Second Panzer Group turned abruptly southward from Smolensk, thrust by surprise into the rear of the Soviet Southwestern Front defending Kiev, and swallowed up over 600,000 Soviet troops. The September catastrophe was due in part to faulty Soviet intelligence. In October 1941 German armies launched their expected thrust on Moscow through sectors the Soviet had not expected them to use. The intelligence failure proved fatal for four Soviet armies and almost led to a loss of the capital. On 17 May 1942 German armies crushed a Soviet attacking force in the Khar'kov region of southern Russia, encircling and capturing over 250,000 men as a prelude to the surprise German strategic thrust that culminated at Stalingrad. Soviet intelligence failures played a major role.

On at least four occasions in the first year of war, Soviet intelligence failed with disasterous consequences. Yet six months later at Stalingrad in November 1942, the Soviets responded with their first successful strategic offensive—an offensive that encircled over 250,000 German and Rumanian soldiers and successfully parried German attempts to relieve the imperiled force. At Stalingrad, Soviet intelligence redeemed itself to a degree, assisted in part by an insatiable German appetite for territory which spread out German military forces and conditioned them for defeat.

We can investigate the period through the Stalingrad operation—up to March 1943—with a degree of accuracy because Soviet classified sources are available which expose Soviet combat performances with a considerable degree of candor. In November 1942 the STAVKA created a system to collect and analyze war experience and to exploit those experiences to improve the Soviet force structure and refine combat techniques.

Between early 1943 and 1949 the Soviet General Staff, drawing upon reports of armies and <u>fronts</u>, produced about sixty-eight volumes of collected war experiences (<u>Sbornik materialov po izuchenie opyta voiny</u> [Collection of materials for the study of war experience]). Each volume was classified <u>sekretnyi</u> [secret] and numbered. Each, in turn, served as a basis for preparing new orders and regulations covering force structuring and mandating use of new combat techniques. German intelligence obtained seven of the first nine volumes, and these are now available for analysis. They provide a remarkably candid view of Soviet combat performance during the first two years of war.²

Throughout the seven volumes are numerous references to Soviet intelligence collection techniques and assessments of the performance of Soviet razvedka organs. The last of the available volumes contains a section dealing with the Soviet artillery counter-preparation at Kursk, which provides insights as to what intelligence was available prior to the German offensive. We can further use these detailed sources to validate the voluminous Soviet open source materials which exist for the Kursk period and to create a baseline by which we may judge the

performance of Soviet intelligence throughout the war. Based on these sources and German archival materials, what then can we say about Soviet intelligence prior to the Kursk operation? First, and foremost, we can conclude that the Soviets learned from their failures.

The Soviet term for intelligence--razvedka--has no equilivent in English.⁴ It describes a unity--a process of collecting, synthesizing, and analyzing data on the enemy to determine his capabilities and intentions. It is a <u>ubiquitous</u> and <u>unitary</u> process which transcends all levels of war. The same term applies to the strategic, operational, and tactical levels and encompasses a host of functional activities.

Adjectives give the term "razvedka" its meaning and context. It ranges from the activities of super spies and codebreakers at the highest level to the most mundane reconnaissance efforts of groups of dog-faced infantry operating on the battlefield itself.

The Soviets possessed a well-though-out theoretical basis for conducting razvedka in the pre-war years. They understood the impact of changing technology on force structure and the nature of combat, and the implication of these changes for intelligence collection and analysis. By the late 1930s the Soviets had established an articulated, centralized system for military intelligence collection. An intelligence heirarchy controlled by the NKVD and the General Staff's Intelligence Department, the Giavnoe razvedyvatel'noe upravlenia (GRU) extended down into fronts, armies, corps, and divisions. Formal intelligence plans were required for every operation; and a system of documents, orders, and forms existed in support of this planning.

This <u>razvedka</u> system relied on ground intelligence collection by combat units, and on artillery and engineer <u>razvedka</u> at the lowest levels; on air, agent, radio, and reconnaisance-diversionary <u>razvedka</u> at the operational level; and on long-range air, radio, and agent <u>razvedka</u> at the highest levels.

Although the Soviets thoroughly understood the means of intelligence collection and their potential value, and they possessed a sound theoretical system for both collecting and processing intelligence information, lack of training and technical difficulties plagued the system as it operated--particularly regarding air and radio razvedka. The June 1941 surprise attack compounded these problems and conditioned the Soviets to eighteen months of intelligence difficulties. These difficulties were, in turn, further accentuated by the misperceptions and misjudgements of the High Command--particularly Stalin--who often overruled or ignored existing intelligence and the correct judgement of senior commanders. This was the case in June 1941, in September and October 1941, in May 1942, and again as late as February 1943. Fortunately for the Soviets , these misperceptions faded at the same time that Soviet intelligence capabilities revived. As Soviet authors have recently written, Soviet combat performance materially improved when, in the summer of 1943, Stalin began deferring to a greater degree to his military experts.

The revival process included these concrete measures to improve intelligence:

--The establishment in late summer 1941 of a centrally controlled razvedka and counter-razvedka system including the special departments [osobyi otdel'-OOs] and intelligence departments (razvedyvatel'nyi otdel'-ROs] at the STAVKA, front, and army levels--which grew in efficiency after 1942.

--The establishment and exploitation of a partisan network to conduct partisan <u>razvedka</u>.

--Generalization of aviation <u>razvedka</u> by line units and, ultimately, the creation of <u>razvedka</u> squadrons at <u>STAVKA</u> and <u>front</u> level and smaller detachments within armies. Growth of photo <u>razvedka</u>, which by November 1942, surveyed most tactical defenses, especially penetration sectors. By the time of Stalingrad, by virtue of photographic <u>razvedka</u>, the Soviets demonstrated a rudimentary capability for tracking the movements of German operational reserves as well.

--Development of rudimentary communications intercept procedures and, by late 1942, creation of specialized intercept/jamming units at <u>front</u> and, later, army level.

--Proliferation of combat (troop) <u>razvedka</u> (searches, sweeps, ambushes and interrogation) and, ultimately, routine use of systematic reconnaissance in force.

--Establishment of artillery <u>razvedka</u> by air and ground observation and, in 1942, by flash and sound ranging.

--Development of engineer ground <u>razvedka</u> to determine the specific nature of defenses.

By November 1942, in a static situation, the Soviets could decipher the nature of tactical defenses to a depth of 20-30 kilometers, particularly in penetration sectors. The Soviets could, by a combination of agent, air, and radio means, detect general enemy unit movements in the operational depths (up to 200 kilometers) with about a fifty percent capability for unit identification. They had marginal capabilities for monitering strategic movements (up to 400 kilometers) as well. In a fluid situation, this capability diminished, tactically and operationally, although, by focusing resources, they could detect large-scale operational redeployments.

These capabilities permitted successful conduct of the Stalingrad operation and determination of the general pattern of German movements which the Soviets then adjusted to counter, for example 2d Guards Army's movement to thwart the German relief attempt at Stalingrad. Soviet razvedka capabilities markedly improved, particularly regarding air and radio, in the winter of 1943—although again Soviet misperceptions negated the value of intelligence information obtained. In February 1943, despite an adequate supply of intelligence, Soviet misperceptions at the strategic level, probably reinforced by inaccurate information

from abroad, produced yet another operational disaster in the Donbas and around Khar'kov. This experience left a legacy of skepticism regarding specialized intelligence collection means. Never again would the Soviets permit themselves to fall victim to major misperceptions. The growing Soviet intelligence capability and a more sober attitude of the Soviet High Command combined to produce significant intelligence strides by the summer of 1943.

By the summer of 1943, Soviet intelligence employed a vast spectrum of well-organized collection means including agent-diversionary, air, partisan, radio-electronic, troop, artillery, and engineer. More important, the Soviets possessed a well-articulated centralized structure to assess intelligence data and to harness it in the service of field commanders and operations officers. The GRU coordinated the entire effort through the RUs and ROs in the chain of command and in the partisan movement.

evaluate the Soviet <u>razvedka</u> system. In October 1943 German Foreign Armies East [Fremde Heere Ost] prepared a revealing study on Soviet intelligence collection capabilities which exposed the vast complexity of the system and provided insights into its capabilities. The system embraced territories within the Soviet Union and abroad and involved a complex chain of intelligence directorates (RUs) and departments (ROs) subordinate to the Peoples' Commissariat of the Navy, the Peoples' Commissariat of Deiense (NKO), the Partisan Central Staff, and the Peoples' Commissariat of Internal Affairs (NKVD) (see figure 1). All

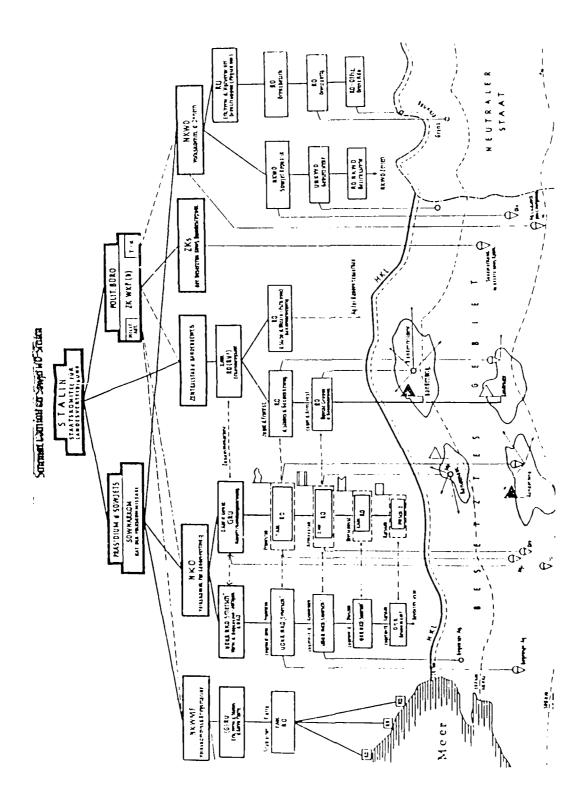


Figure 1. Soviet reconnaissance-diversionary structure

were centralized under the State Committee for Defense, in essence the STAVKA.

Within the General Staff, the Main Intelligence Directorate (GRU), the second department, controlled intelligence training, an agent network abroad, and an operational group to collect and process intelligence from fronts and other subordinate collection assets (see figure 2). Subordinate to the Chief of Intelligence were a communications control group, a radio division for radio-electronic razvedka, and a cipher department. An information group recorded, analyzed, and processed collected information. Analogous organizations existed within each front's intelligence department (RO) (see figure 3). The front's intelligence collection responsibilities extended to a depth of 500 kilometers. In addition to an agent control group, the front RO coordinated army intelligence collection and conducted its own razvedka with organic means. It also possessed a radio department tasked with intelligence collection and disruption of enemy communications (jamming), as well as a cipher department.

The army intelligence department (RO) controlled <u>razvedka</u> to a depth of 200 kilometers through its own collection efforts and those of subordinate divisions (see figure 4). An information section processed the collected data and dispatched it to <u>fronts</u>. At division level, the intelligence department (RO) controlled a limited agent capability but primarily conducted troop ground <u>razvedka</u> with the division reconnaissance company and infantry and cavalry reconnaissance units of subordinate regiments (see figure 5).

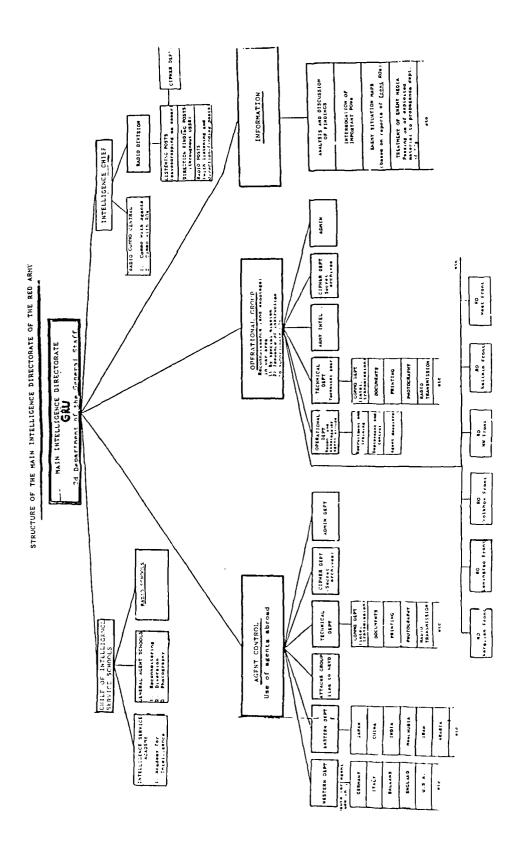


Figure 2. Structure of the Main Intellegence Directorate (GRU) of the Red Army

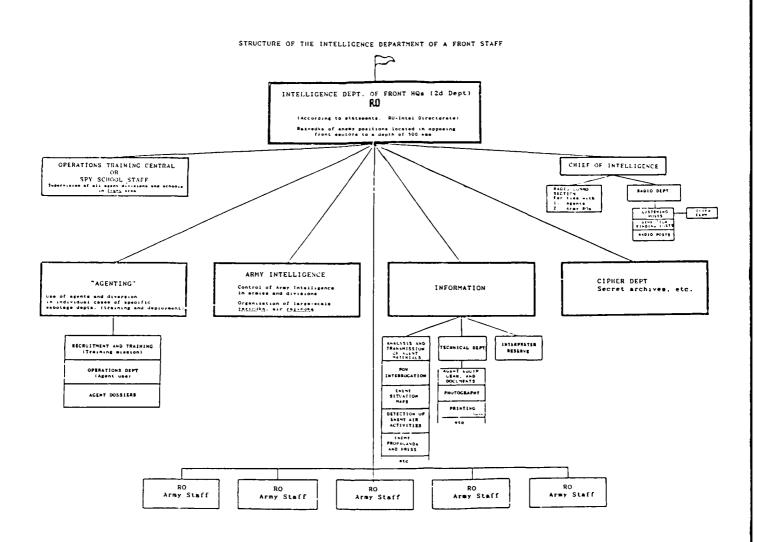
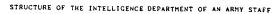


Figure 3. Structure of the Intelligence Department (RO) of the <u>front</u> staff



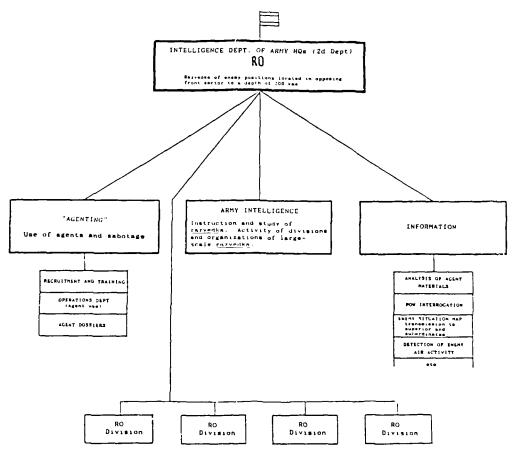


Figure 4. Structure of the Intelligence Department (RO) of an army staff

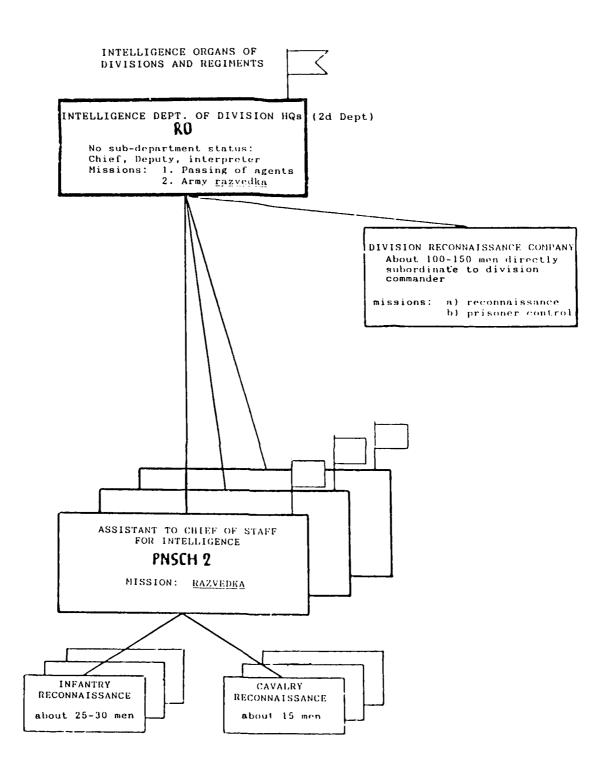


Figure 5. Intelligence organs of divisions and regiments

Prior to April-May 1943, the Germans correctly assessed that intelligence activities were controlled both by the NKVD and the Peoples' Commissariat of Defense (see figure 6). The NKVD's Directorate of Special Departments coordinated actions of special departments [osobyi otdel'/00] within fronts, armies, and divisions. These conducted counter-razvekda against enemy agents both in the enemy and Soviet rear areas. The GRU was responsible for razvedka within fronts, armies, and divisions through the hierarchy of ROs. After April-May both counter-razvedka and razvedka were centralized under the Commissariat of Defense (see figure 7). The Main Directorate for Counter-razvedka, nicknamed "Death for Spies" [Smert' shpionam or SMERSH] accomplished the former at each command level, while the ROs under GRU control conducted the latter.

An parallel intelligence network performed the <u>razvedka</u> function within the partisan command controlled by the Intelligence Department (RO) of the Central Partisan Headquarters (see figure 8). This network was closely supervised by the GRU and ROs at <u>front</u> and army level.

The German study accurately reflected the vast scope of Soviet intelligence activities and the centralized nature of the entire system. It revealed the many facets of collection activities and hinted at its potential effectiveness. Hundreds of shorter reports scattered through German archives provide an even more imposing impression regarding the system's capabilities. These reports, together with Soviet accounts, add further detail to the Soviet intelligence collection system and

UP TO APRIL/MAY 1943:
THE DECENTRALIZATION OF THE DIRECTION OF
MILITARY INTELLIGENCE SERVICE

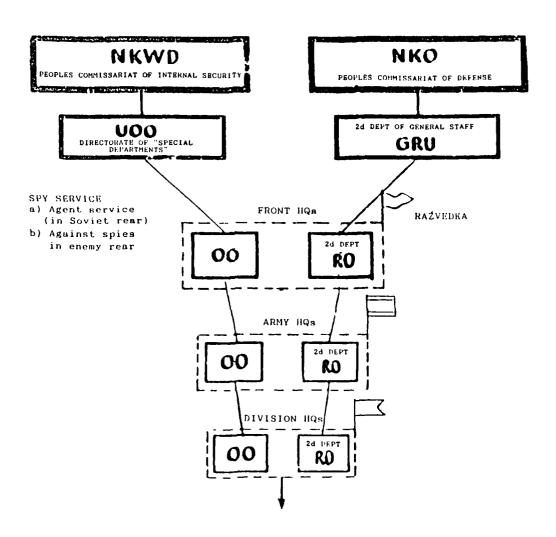


Figure 6. Soviet military intelligence service, to April-May 1943

FROM APRIL/MAY 1943 CENTRAL DIRECTION OF THE MILITARY INTELLIGENCE SERVICE

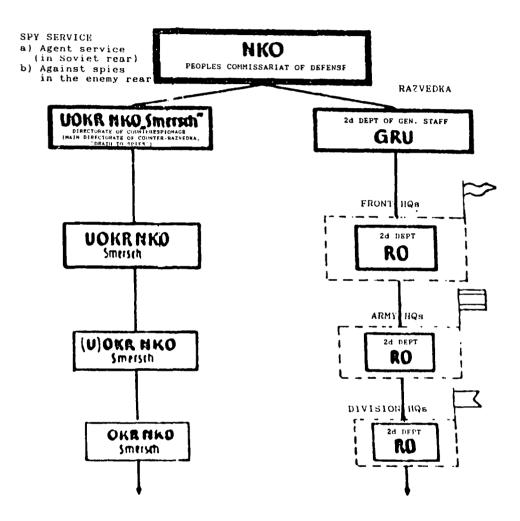


Figure 7. Soviet military intelligence service, after April-May 1943

INTELLIGENCE DEPARTMENT OF THE PARTISAN HQ

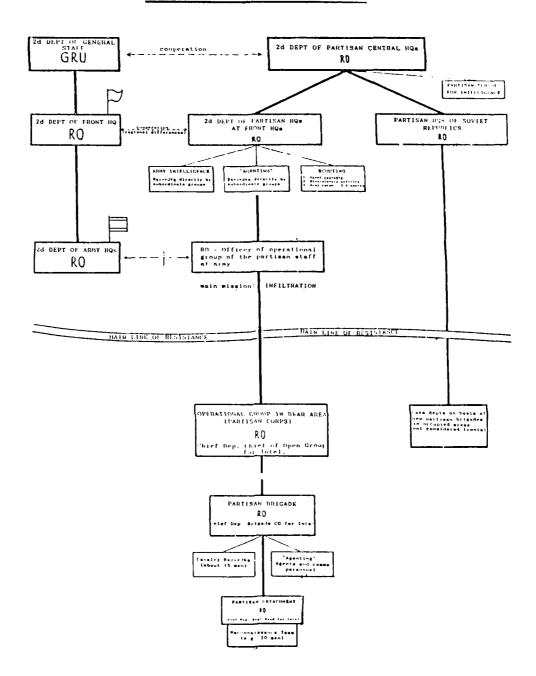


Figure 8. Intelligence Department of the Partisan Headquarters

indicate an even greater effectiveness than the October 1943 Fremde

Heere Ost report implied.

German reports and Soviet studies published since the war detail the operating agencies and forces within the Soviet intelligence system.

The razvedka means controlled by the GRU and subordinate headquarters included air, agent-diversionary, partisan, radio-electronic, troop, artillery, and engineer forces, supplemented by extensive personal reconnaissance on the part of commanders at all command levels. A brief look at each means reveals capabilities and forces well beyond those recognized in the German intelligence reports of late 1943.

Air surveillance was one of the most important means for determining German force regroupings and movement, which were the principal indicators of German intentions, either offensive or defensive. While air reconnaissance was a secondary task of all air force aircraft, the Soviets created specialized units to perform the function (see figure 9). Air reconnaissance regiments were subordinate to both Soviet Long-Range Aviation (under STAYKA control) and front air armies, while smaller air reconnaissance detachments served as the eyes of army commanders. Depth of reconnaissance varied according to the depth of intelligence responsibilities of headquarters controlling the aircraft. Pilots used both visual observation and photography to survey German dispositions in the tactical and operational depths. Soviet war experience analysis indicated that photographic techniques were far more advanced than the Germans suspected. 12

RAZVEDKA MEANS

<u>MEANS</u>	SUBORDINATION
AIR	
* AIR RECONNAISSANCE REGIMENTS (FOUR SQUADRONS EACH)	LONG RANGE AVIATION (<u>STAVKA</u>) AIR ARMIES (<u>FRONTS</u>)
* AIR RECONNAISSANCE DETACHMENTS	ARMIES
* FRONTAL AIR FORCES	FRONTS

Figure 9. Air razvedka means

Agent and reconnaissance-diversionary razvedka was more multifaceted than German intelligence assessed it to be. Agents and
specialized reconnaissance-diversionary forces of different types
operated at every command level, to varying depths, and with a wide
range of missions (see figure 10). At the highest level, in late 1941
the NKVD created the Separate Motorized Rifle Brigade of Special
Designation. 13 This unit, formed from athletes of Moscow sports clubs
(ie, Dynamo), received special training in reconnaissance and
diversionary activity, and often German language training as well. The
Soviets deployed groups and small teams from the brigade in critical
sectors of the German rear under NKVD "Central" control. Later, teams
operated in similar fashion across the front, often under front control.

The GRU controlled an agent network abroad which encompassed the infamous spy networks operating in Switzerland ("Dora," "Lucy").

Although much has been written in a popular vein about these networks, their impact on operations was only marginal. The historian Sir Harry Hinsley, who wrote the official history of British intelligence in the war, has catagorically denied the British used these networks to pass Ultra-derived information to the Soviets. "A Moreover, in 1942 and 1943 intelligence information from Switzerland (and elsewhere) was either ignored or was incorrect. In these cases, it either failed to affect Soviet performance, or it contributed to the poor intelligence picture. After mid-1943 Soviet internal military intelligence organs and means improved sufficiently to render foreign information to only secondary value.

SUBORDINATION

* AGENT-DIVERSIONARY

SEPARATE MOTORIZED RIFLE BRIGADE
 OF SPECIAL DESIGNATION (OMSBON)

NKVD "CENTRAL"

° AGENTS

GENERAL STAFF - GRU

* DETACHMENTS AND GROUPS FROM **OMSBON**

FRONT ROS

* DESTROYER BRIGADES

FRONT ROS

* RECONNAISSANCE-DIVERSIONARY
DETACHMENTS AND GROUPS

FRONT ROS

* GUARDS BATTALIONS OF MINERS

FRONT CHIEF ENGINEER

"OGBM"

* RECONNAISSANCE DETACHMENTS
AND GROUPS

ARMY

Figure 10. Agent and reconnaissance-diversionary razvedka means

Soviet <u>front</u> ROs employed a variety of reconnaissance-diversionary groups. The destroyer [<u>istrebitel'naia</u>] brigade, originally trained for rear area security and cooperation with partisans, eventually also provided multiple teams for use in the enemy rear. Among other such teams were those formed from sapper (miner) battalions, which conducted reconnaissance-diversionary tasks of an engineer nature. Similar detachments and groups operated at army level, only on a lesser scale. An excerpt from a post-war analysis of German G-2 (1c) efforts assembled by former German intelligence officers provided a glimpse of agent effectiveness:

The agents used by the Russians for missions to be carried out deep in German territory were, for the most part, very well schooled and provided with stories and background that were very credible so that it was difficult, in interrogation, to arrive at the truth of the situation. In addition, these agents usually had almost no information concerning the mission as a whole and had no knowledge of other agents who might have been employed, but had very limited horizons. 17

The Central Staff of the Partisan Movement and its subordinate headquarters and forces employed an analogous system of agents and reconnaissance-diversionary detachments and groups (see figure 11).

These operations were closely integrated with activities of the GRU and front and army ROs. An extensive communications network insured coordinated action between regular and partisan intelligence collectors (see figure 12). German archives are replete with assessments made concerning activity in their rear area. Illustrative of the types of Soviet forces in the German rear and the extensive nature of their activities is an assessment made in December 1944 on the eve of the

* PARTISAN

- * RECONNAISSANCE-DIVERSIONARY
 DETACHMENTS AND GROUPS
- * RECONNAISSANCE-DIVERSIONARY
 DETACHMENTS AND GROUPS
- AGENTS

SUBORDINATION

CENTRAL STAFF OF
PARTISAN MOVEMENT
(Ts Sh PD)

PARTISAN BRIGADES AND DETACHMENTS (ROS)

CENTRAL STAFF OF
PARTISAN MOVEMENT
(Ts Sh PD)

Figure 11. Partisan <u>razvedka</u> means

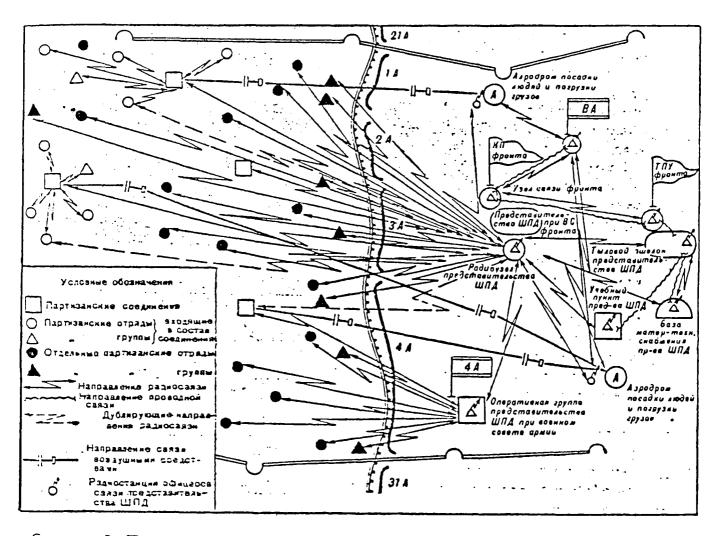


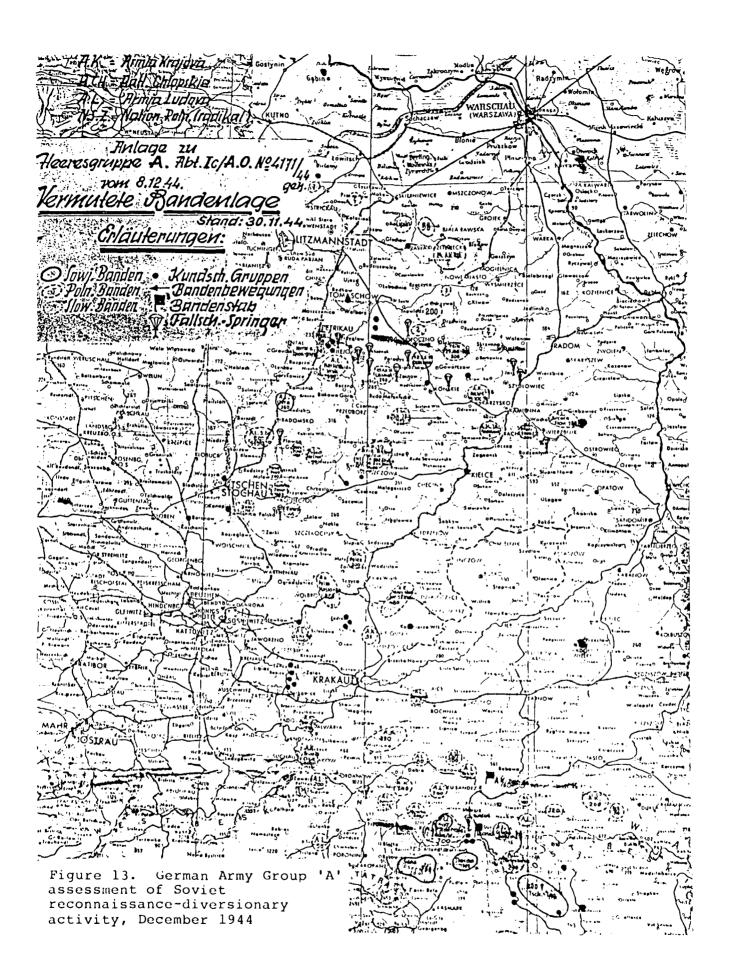
Схема 3. Принципиальная схема организации связи представительства, штаоа партизанского движения при Военном совете фронта

Figure 12. Partisan communications with a <u>front</u> staff

Vistula-Oder operation (see figure 13). 19 The assessment distinguished between Soviet, Polish, and Slovakian groups, but lumped other activities together under the titles Banden [bands] and Kundschafter Gruppen [scouting groups].

By 1943 radio-electronic <u>razvedka</u> was performed by special-purpose radio battalions created and employed within the GRU and <u>fronts</u> (see figure 14). 20 These battalions both monitered German radio traffic and attempted to jam it when necessary. Although they were only marginally effective in early 1943, by late 1943 they proved more effective. In 1944 the Soviets developed a similar capability within operating armies.

Although there is no proof the Soviets possessed a high level deciphering capability similar to the British "Ultra," that capability cannot be ruled out. The Soviets certainly had the opportunity to capture German Enigma ciphering machines on several occasions, and by 1943 they possessed the technical capability for exploiting that technology. It is clear that by late 1942 the Soviets were intercepting and deciphering lower level German communications. According to official British accounts, the Soviets did receive Ultra-derived information via the British Military Mission in Moscow. By the summer of 1943, however, in part because of Soviet intransigence in sharing intelligence data, the flow of British information dried up. The last valuable report transmitted by the British was purported to have been a substantive April 1943 German report on their offensive intentions in the summer of 1943.21



<u>MEANS</u>

SUBORDINATION

- * RADIO-ELECTRONIC
 - * SPECIAL PURPOSE RADIO BATTALIONS

GENERAL STAFF (GRU)

AND FRONTS

Figure 14. Radio-electronic razvedka means

Shorter-range Soviet intelligence collection involved troop, artillery, and engineer razvedka and personal reconnaissance by commanders and staffs. By far, this was the most effective aspect of Soviet intelligence collection. Troop razvedka involved a variety of ground actions by patrols, detachments, and groups under control of all levels of command down through regiment (see figure 15).²² These actions, plus more sophisticated reconnaissance in force conducted prior to operations, provided a detailed mosaic of intelligence indicators whose sum was far more important than each component part. In fact, the Soviets believed the sum of such mundane acts could produce profound impact on the outcome of battle.

Artillery razvedka involved establishment of an extensive observation network at all levels supplemented with artillery instrumental reconnaissance (AIR) conducted on the ground and in the air (see figure 16). 23 The principal focus of artillery razvedka was to "illuminate" the nature of the defense and provide accurate targeting data. Engineer razvedka performed a similar function in the engineer realm (see figure 17). 24 A variety of engineer posts, reconnaissance groups, and patrols supplemented or joined normal reconnaissance efforts to "illuminate" engineer aspects of enemy defenses. Finally, the Soviets employed a well-defined system of personal reconnaissance [rekognostsirovka] by commanders and staffs to familarize all parties with the nature of terrain and close enemy defenses (see figure 18). 25 All commanders from front down to battalion conducted personal reconnaissance accompanied by senior or subordinate commanders. Since

SUBORDINATION

- TROOP
 - * PATROLS, SWEEPS, AMBUSHES FRONT, ARMY, AND RAIDS BY RECONNAISSANCE CORPS AND DIVISION PATROLS, DETACHMENTS, AND GROUPS

* RECONNAISSANCE IN FORCE BY RIFLE CORPS AND ADVANCED COMPANIES AND **BATTALIONS**

DIVISIONS

Figure 15. Troop razvedka means

SUBORDINATION

- * ARTILLERY
 - ° OBSERVATION

FRONT THROUGH BATTALION (CHIEF OF ARTILLERY)

- * ARTILLERY INSTRUMENTAL
 RECONNAISSANCE (AIR) BY:
 - SEPARATE RECONNAISSANCE
 ARTILLERY BATTALIONS (ORAD)
 - SEPARATE CORRECTIVE
 RECONNAISSANCE AVIATION

 SQUADRONS (OKAE) AND

 REGIMENTS (OKAP)

ARTILLERY DIVISION OF
FRONTS
ARTILLERY DIVISION OF

FRONTS

Figure 16. Artillery <u>razvedka</u> means

ENGINEER

- OBSERVATION BY ENGINEER
 OBSERVATION POSTS (INP)
- * ENGINEER RECONNAISSANCE

 DETACHMENTS AND GROUPS (IRG)
- ENGINEER RECONNAISSANCE

 DETACHMENTS AND PATROLS

SUBORDINATION

FRONT THROUGH BATTALION (CHIEF OF ENGINEERS)

ENGINEER BRIGADES OF
SPECIAL DESIGNATION
(FRONTS)

ENGINEER BRIGADES AND

BATTALIONS OF FRONTS,

ARMIES, AND DIVISIONS

Figure 17 Engineer <u>razvedka</u> means

<u>MEANS</u>

SUBORDINATION

* PERSONAL RECONNAISSANCE (REKOGNOSTSIROVKA)

° COMMANDERS AND STAFFS

ALL COMMAND LEVELS

Figure 18. Officer's personal razvedka

such a reconnaissance could become an indicator of impending action, by 1943 simulated reconnaissance became a formal part of Soviet deception planning as well.

All of these Soviet intelligence efforts focused on the practical needs of commanders and staffs in two principal respects:

- --First, to determine principal offensive indicators (first and foremost, movement of operational and tactical reserves);
- --Second, to support tactical and operational defensive and penetration operations, which the Soviets considered necessary first steps for achieving operational and strategic success.

The primary Soviet presumption was that a valid intelligence picture depended directly on the quantity and quality of tactical detail. They believed the sum of seemingly mundane data would often be profound.

Above all, the Farmers resolved to avoid operating on the basis of presumption and preconceived notion, which had led to disasters before, and to treat intelligence skeptically. This produced a tendency for the Soviets to "safe-side" their assessments and prepare accordingly, as was the case at Kursk.

In the spring and early summer of 1943, the Soviets conducted razvedka to support strategic and operational planning and to implement associated deception planning. The Soviets realized a new German offensive was likely and, based on prior experience, they appreciated the difficulty involved in halting that offensive before it reached operational or even strategic depths. Despite this realization, the Soviets themselves intended to resume strategic offensive operations,

which had been interrupted by German counterattacks in February and March 1943 in the Donbas region.

The Soviet solution to this dilemma was to orchestrate a strategic offensive incorporating a defensive first phase. During the defensive phase, the Soviets intended to blunt the expected German thrust wherever it occurred. Thereafter Soviet forces were to resume the offensive, first in the most critical sectors, and then along the entire front. The principal task of razvedka during the first phase of the strategic operation was to determine the timing, direction, and strength of the German offensive. During subsequent phases, razvedka would moniter German movements in support of Soviet offensive operational planning and Soviet deception measures.

During the spring of 1943 German planners, as directed by Hitler, sketched out plans for three operations codenamed "Habicht," "Panther," and "Zitadelle," the former two involving operations east of Khar'kov and the latter requiring a large-scale assault on both flanks of the Kursk Bulge (see figure 19). Ultimately, "Zitadelle" became the approved German plan, but planning for the other two blurred for the Soviets the issue of where the offensive would occur. Henceforth Soviet razvedka organs focused primarily on refining German intentions.

Soviet razvedka had to support an elaborate Soviet deception [maskirovka] plan as well (see figure 20). 26 The plan sought to confuse the Germans regarding Soviet offensive intentions and, by a variety of diversions and simulations, prompt the Germans to move critical operational reserves from the areas of Soviet main attack. In short,

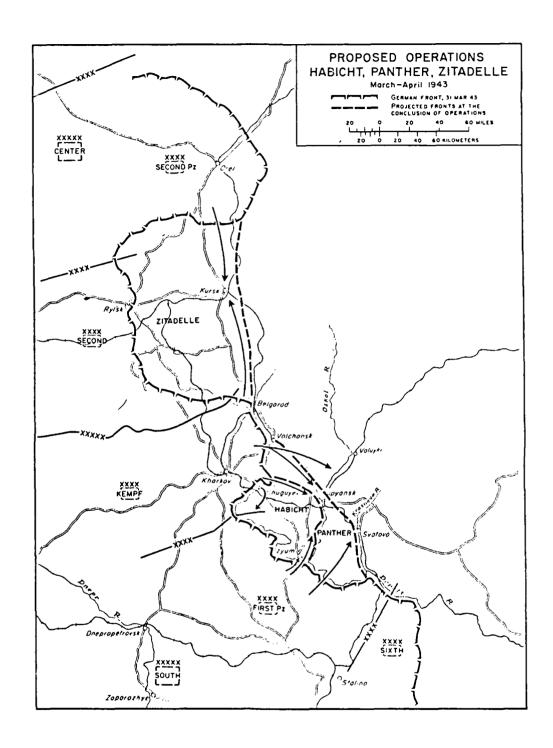


Figure 19. German operational plan for the Kursk operation

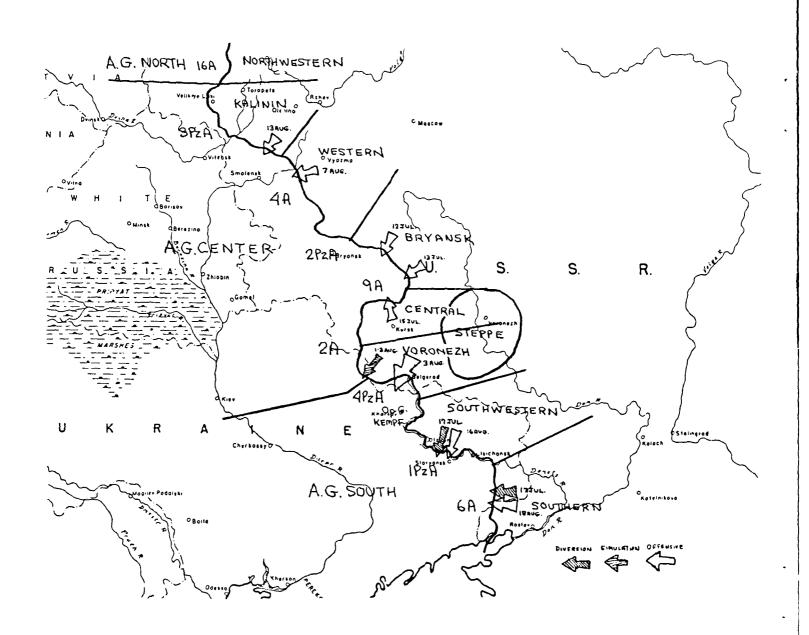


Figure 20. Situation, 4 July 1943 Soviet diversions, simulations and counterstrokes, 12 July-16 August 1943

the Soviets sought first to defeat the German offensive. At the moment the German assault was halted, Soviet forces would themselves attack the Orel salient north of Kursk. Shortly thereafter, to the south, the Soviet Southwestern and Southern Fronts were to launch attacks across the Northern Donets and Mius Rivers after demonstrative and open offensive preparations designed to be detected by German intelligence. These attacks were designed to attract German reserves from the Belgorod and Khar'kov areas and fix them in the south until the main Soviet thrust had achieved its goals.

The Soviet main thrust was designed to occur on the critical Belgorod-Khar'kov-Poltava-Kiev-Kremenchug axis, where other Soviet operational and tactical simulations conducted only days before the attack were to further disperse German tactical reserves. After the Belgorod-Khar'kov thrust had developed, virtually all Soviet fronts would join the offensive to force German forces back to the Dnepr River. During the offensive phases of the Kursk operation, razvedka had the task of tracking German reserves to verify the effectiveness of the deception plan.

Throughout the spring, the Soviets focused all <u>razvedka</u> assets on determining German intentions. Among the most important indicators of German intent was the disposition of German panzer corps which would have to play a central role in the offensive. The Soviets employed air, agent, and radio means to pinpoint the location of these units in the operational depths while tactical reconnaissance strained to detect the presence or arrival of these units in the tactical forward areas.

Of particular importance for the German offensive were the panzer corps (XXXXVIII, II SS, LVII, XXIV, and XXXX) located in the depths on an arc from southwest of Belgorod to south of Izyum. The size and depth of dispositions of these forces made Soviet detection of their movement more feasible than detection of movement within the more tightly concentrated mass of German mobile units located around Orel to the north. Movement of German forces in the south became the preeminent attack indicator for Soviet intelligence.

The Soviets issued warnings for an impending German attack on four occasions during the spring and summer as follows: 27

PREDICTED ATTACK DATES

Warning Date	Projected Attack Date
l May	2 May
8 May	10-12 May
19 May	26 May
1 July	5-6 July

Close analysis of German troop movements from April to early July indicates a close corrolation between major German troop movements and the Soviet issuance of warnings (see figures 21-32). 28 In short, each warning came after a burst of German movement activity. The last warning of 1 July occurred after the most extensive German movement to date. Detection of German movement (most of which occurred at night and in camoflagued condition) was through a combination of agent, reconnaissance-diversionary, air, and radio razvedka. Human intelligence obtained by Soviet aerial and ground observation of main

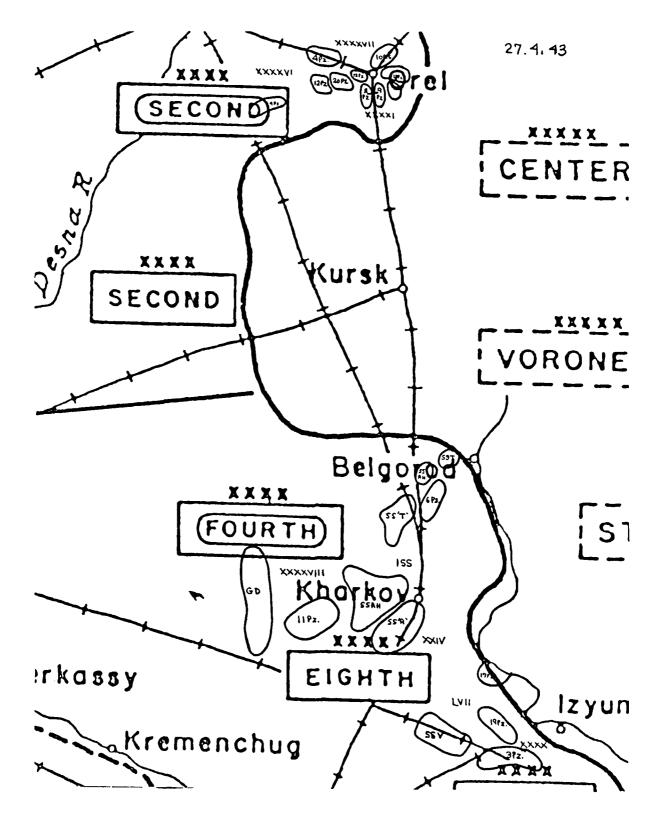


Figure 21. Position of German operational reserves, 27 April 1943

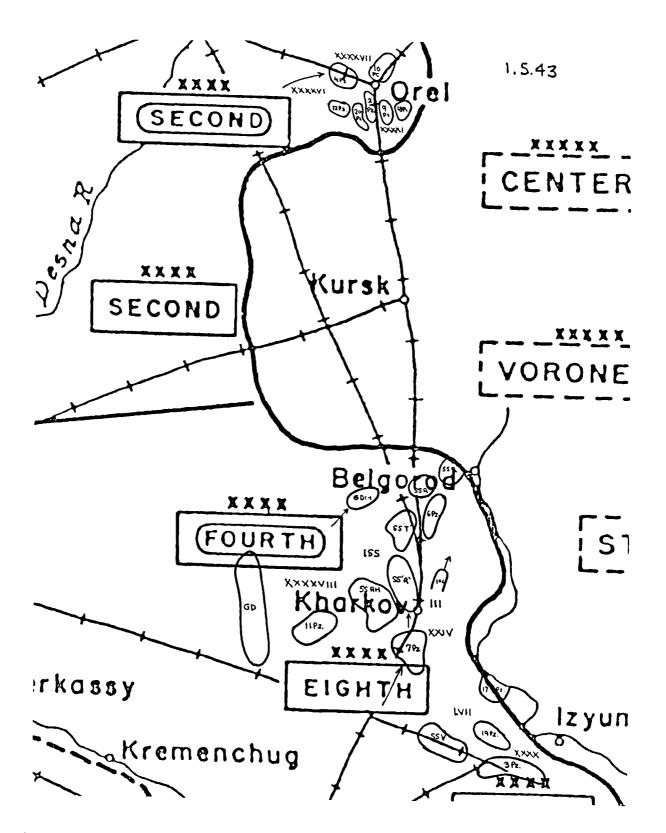


Figure 22. Position of German operational reserves, 1 May 1943

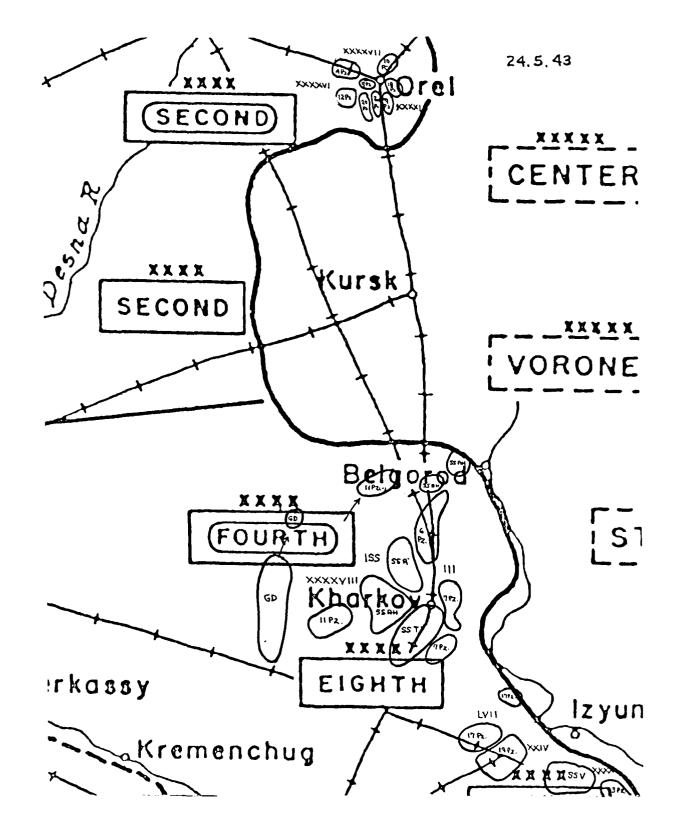


Figure 23. Position of German operational reserves, 24 May 1943

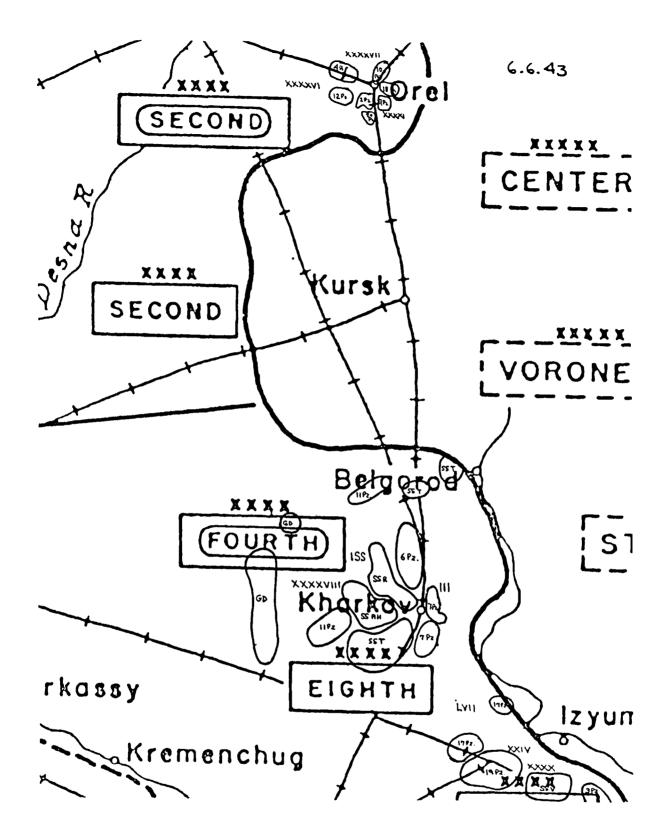


Figure 24. Position of German operational reserves, 6 June 1943

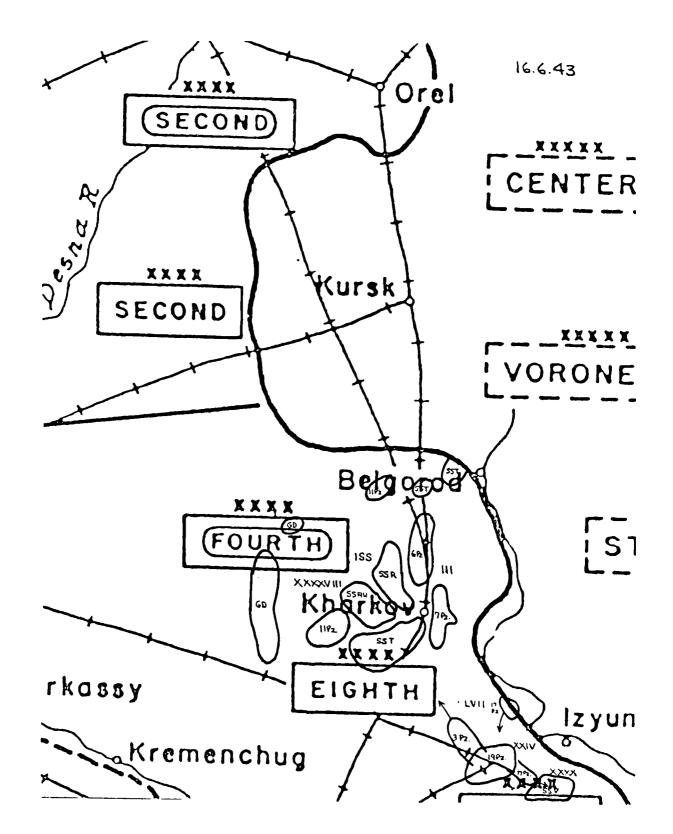


Figure 25. Position of German operational reserves, 16 June 1943

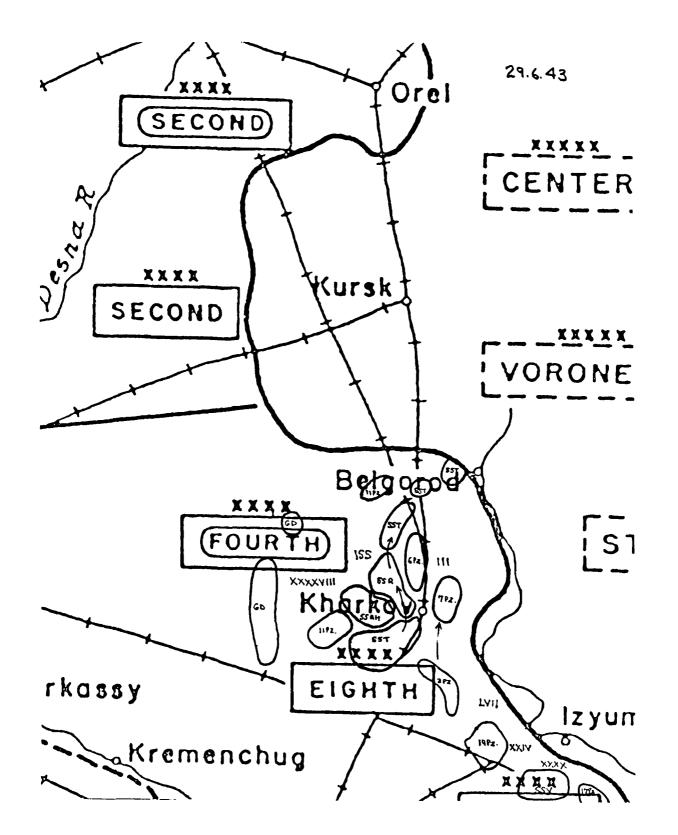


Figure 26. Position of German operational reserves, 29 June 1943

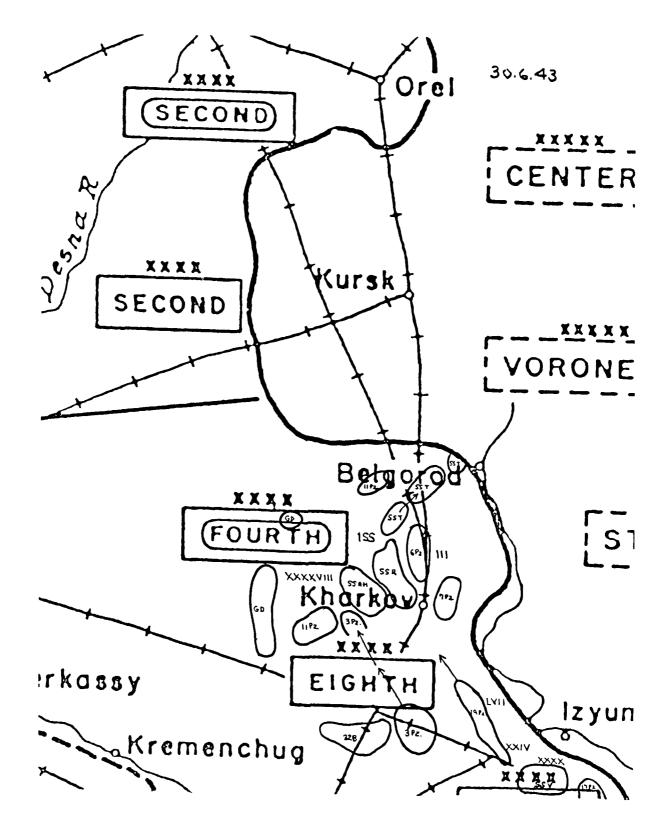


Figure 27. Position of German operational reserves, 30 June 1943

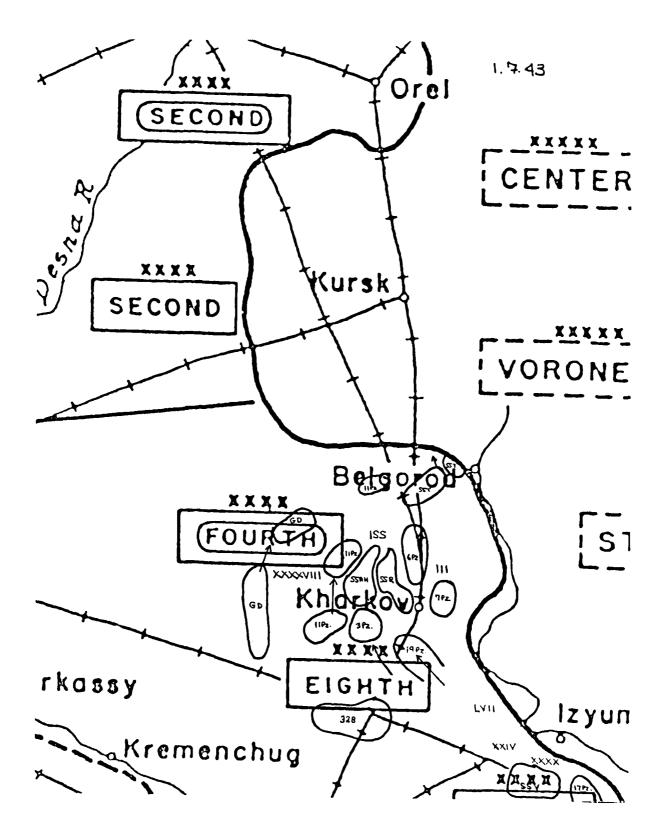


Figure 28. Position of German operational reserves, 1 July 1943

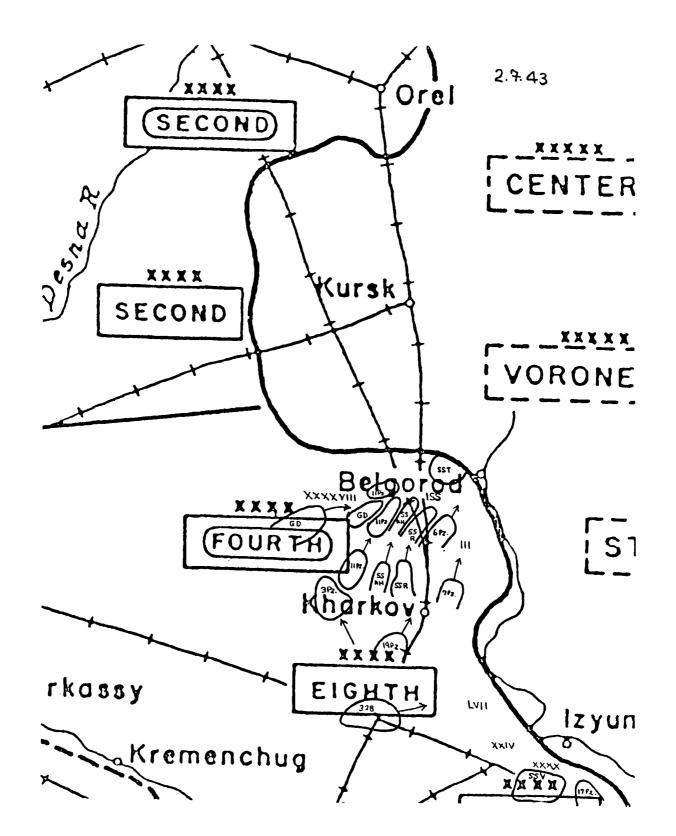


Figure 29. Position of German operational reserves, 2 July 1943

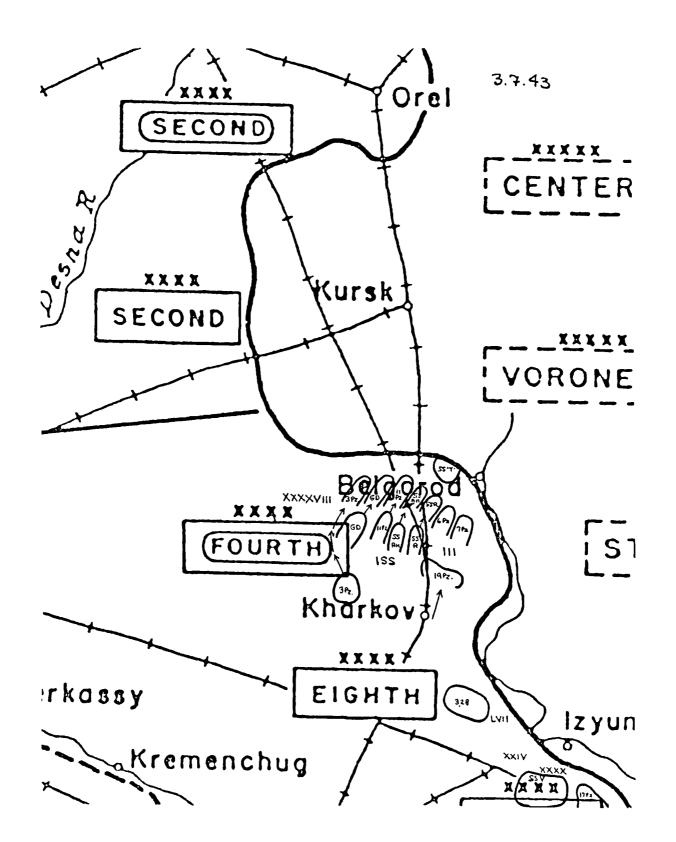


Figure 30. Position of German operational reserves, 3 July 1943

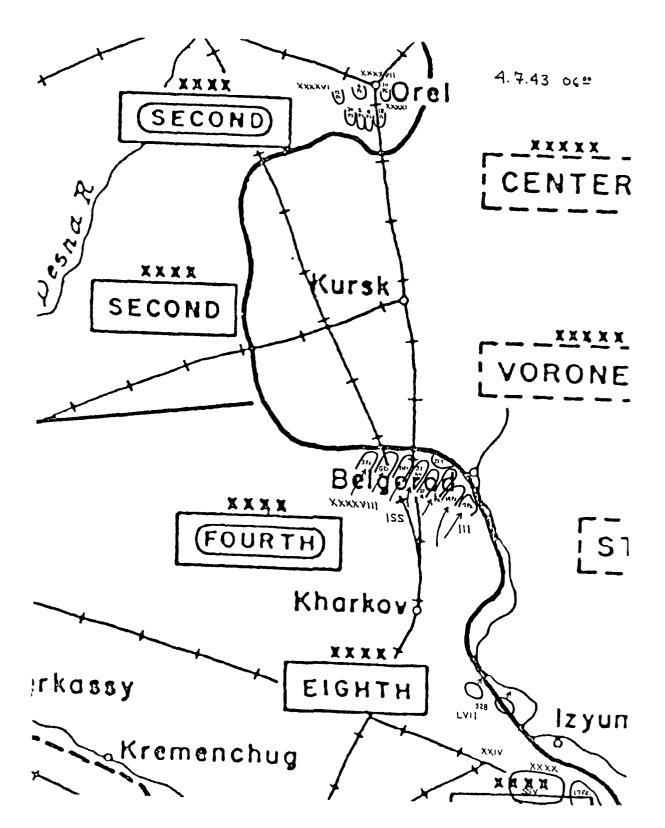


Figure 31. Position of German operational reserves, 0600, 4 July 1943

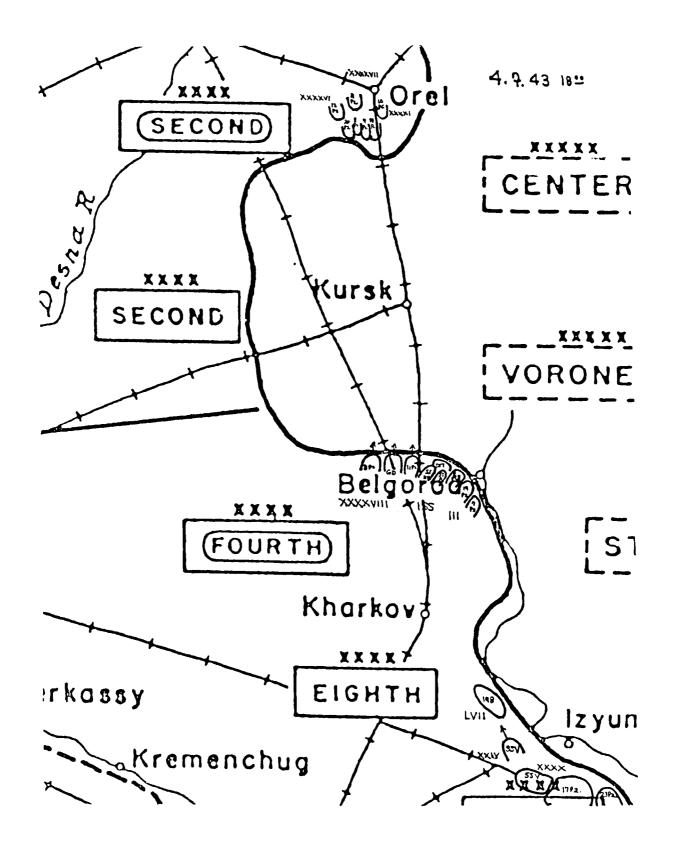


Figure 32. Position of German operational reserves, 1800, 4 July 1943

rail and road routes was probably most important. Within weeks Soviet reconnaissance-diversionary forces would conduct active attacks and sabotage against these very same routes. Classified and open-source Soviet accounts credit detection of German movement as the chief means for determining German intentions.²⁹

Soviet <u>razvedka</u>, assisted by British intelligence reports provided in April, determined German offensive intent. Thereafter intelligence was able to determine the general areas of the German main attacks, although not in every case the precise tactical direction. Despite the success, enough indicators existed to indicate possible German attacks in other sectors as well, in particular in the Izyum sector. These factors, as well as Soviet offensive planning, contributed to the ultimate pattern of Soviet strategic deployment of forces.

Soviet strategic dispositions reflected a maturity on the part of Soviet planners often absent in earlier years. Having experienced intelligence failures in the past, the Soviets resolved to treat intelligence data skeptically and, above all, to rid operations and strategic planning of pre-conceived notions or misperception. In short, the Soviets prepared for every eventuality in their preparations for the Kursk operation.

Knowledge of prior Soviet experience, as well as an examination of German archival sources, indicates Soviet skepticism was prudent.

Originally the Germans had planned for operations in sectors adjacent to that of Kursk proper. As the date of the offensive neared, the Germans resurrected these plans ("Habicht" and "Panther") either for deception

(as diversions) or as adjuncts to the actual Kursk offensive. An order to First Panzer Army on 29 June required deceptive measures by that Army in the Izyum region (see figure 33). 30 As late as 7 July, two days after the German assault at Kursk, new orders to First Panzer Army postulated delivery of a supporting attack in that region (see figures 34-35).31 Consequently Soviet strategic planners prepared for every eventuality and concentrated their forces in a wide band from Moscow in the north to Voroshilovgrad in the south.

Actual Soviet dispositions in the summer of 1943 were not recognized by German intelligence in July 1943. Nor did German commanders writing long after the war had ended understand the realities of July. Most general Soviet studies of the Kursk operation reinforce that false picture. Most maps of the Kursk operation show an immense concentration of forces at Kursk including those initially in the area on 5 July and those which joined combat in the region over the course of the operation (see figure 36).

Careful reading of Soviet sources and study of post-Kursk German archival materials paint a different picture. Examination of Soviet manpower strength deployed along strategic directions confirms preeminent Soviet concern for the southwestern direction (axis) from north of Kursk to south of Izyum (see figure 37). Inspection of individual front strengths provides a more refined picture (see figure 38). 32 The four strongest Soviet fronts were the Western, Central, Voronezh, and Southwestern, covering the three main likely German axes of advance: the Vyaz'ma-Moscow, Orel-Voronezh, Belgorod-Voronezh, and Izyum-

Message entitled: to KR. G.KDOB. CHEFBACHE HZOX/Z C258 + KR--HZOXZ C258/55 29.6.43 1130--AN PZ-A.O.K. 1, from HEERESGRUPPE SUD, ROEM EINS A NR. 0594/43 GEH. KDOB. NAM T-818/60. The message read: To Pz. A.O.K.1'

lst Panzer Army from day x=3 to day x is simulating [feigning] the continuation of deployment from the outskirts of Lozovaya, Krasnopavlovka, and Mechebilovka toward the Donetz From t. At the same time, the impression of an upcoming change of course is to be aroused in the enemy by exhibiting bridging materials.

Figure 33. Order to First Panzer Army, 29 June 1943

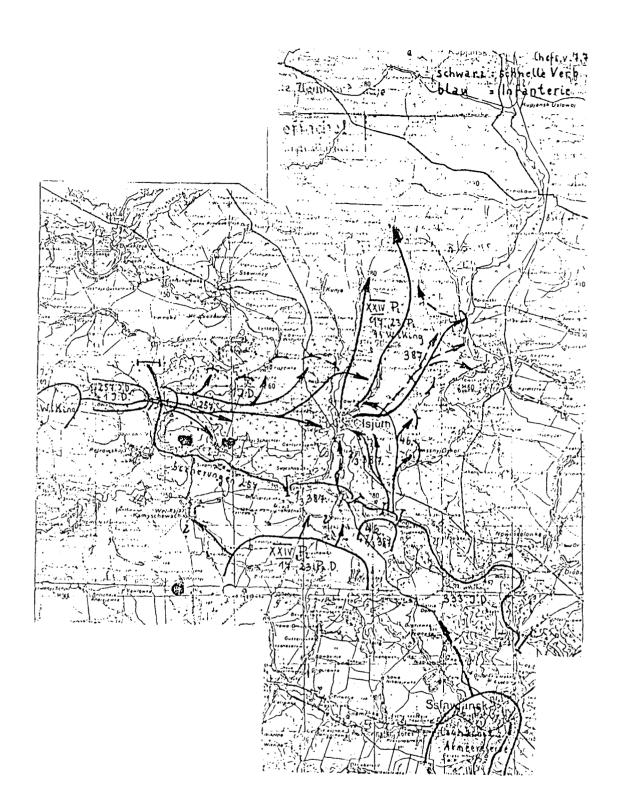


Figure 34. First Panzer Army Planning 7.7.1943, Inclosure 1

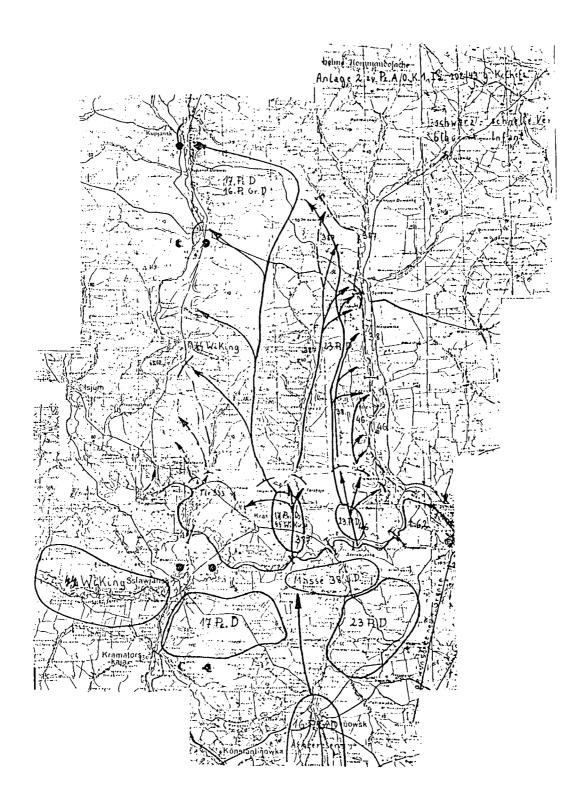


Figure 35. First Panzer Army Planning 7.7.1943, Inclosure 2

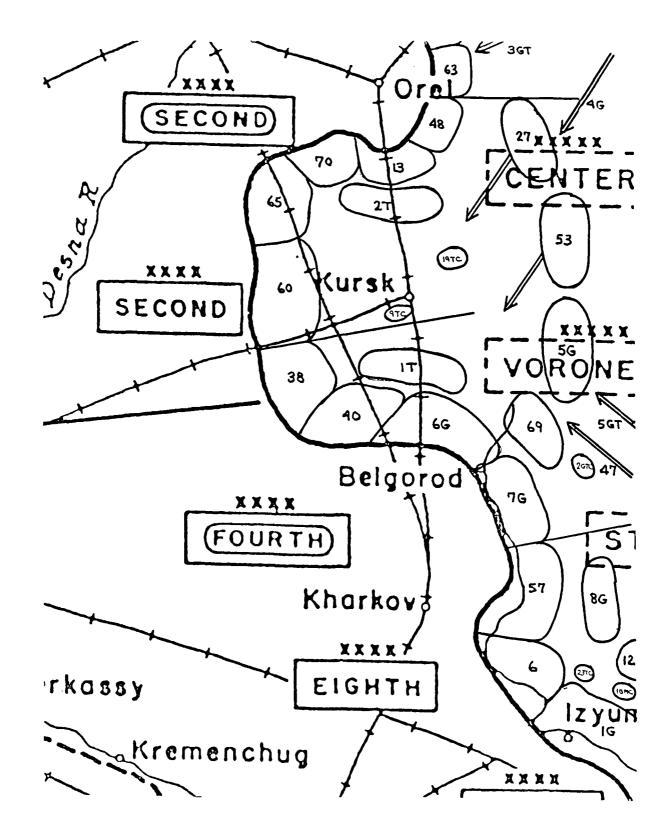


Figure 36. Concentration of Soviet Forces at Kursk, 4-21 July 1943

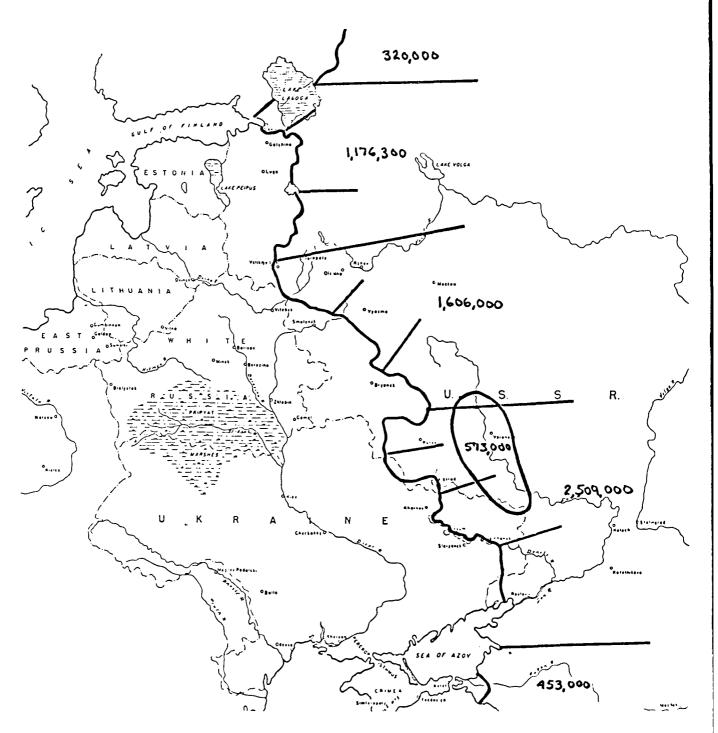


Figure 37. Distribution of Soviet strength along strategic directions, 4 July 1943



Figure 38. Strength of Soviet fronts, 4 July 1943

Voronezh. The Steppe Front backed up Soviet forces along the three southern axes, but as we shall see, significant reserves also backed up the Western Front, the strongest of the <u>fronts</u>. The deployment of Soviet reserve armies more clearly evidences this fact (see figure 39).

A closer examination of Soviet deployments as of 5 July reveals the magnitude and breadth of Soviet dispositions (see figure 40). 33 In fact, the Soviets had forces positioned to cover virtually every major strategic direction. Powerful, deeply echeloned armies covered the Kursk Bulge with two tank armies (1st and 2d) positioned to strike the flanks of the advancing German forces. Two echelons of rifle armies covered the Izyum-Voronezh axis, backed up by separate mobile corps. The Steppe Front, with four rifle armies and one tank army (5th Guards), was poised well to the rear, positioned to strike German forces advancing along either the Kursk or Izyum axis. Further north, two echelons of armies, backed up by a reserve rifle army and two tank armies (4th and 3d Guards), covered the approaches to Moscow.

Contemporary German intelligence assessments failed to note the concentrations, and twenty years later Field Marshal von Manstein's appreciation scarcely reflected the realities of 5 July (see figure 41).³⁴ In fact, German intelligence data and post-war works continued to reinforce the popular view that the bulk of the Red Army was initially at Kursk, ready to meet the 5 July assault. Instead, the larger concentrations would ultimately form at Kursk, but only well after the Germans had initiated their action and only when it became crystal clear that Kursk was the target.

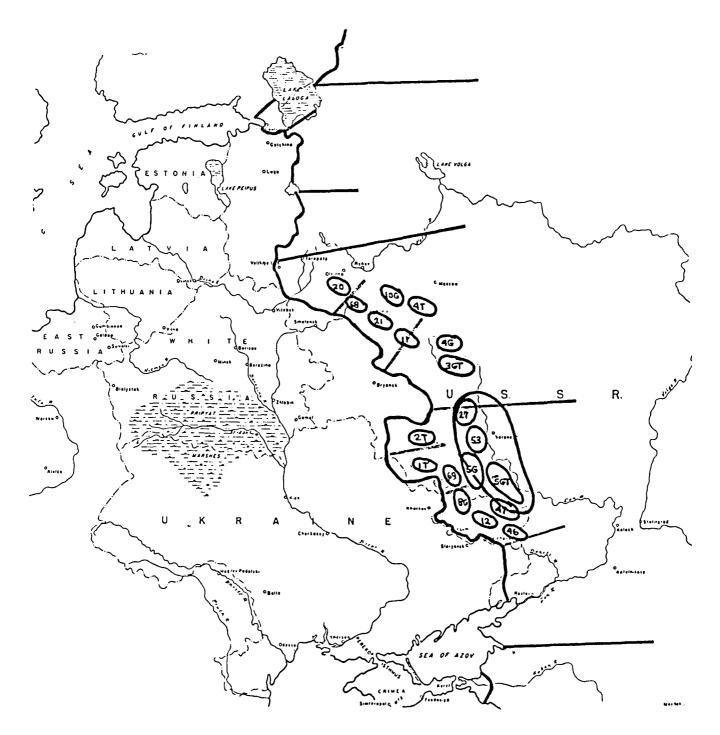


Figure 39. Soviet second echelon and reserve armies, Western and Southwestern directions, 4 July 1943

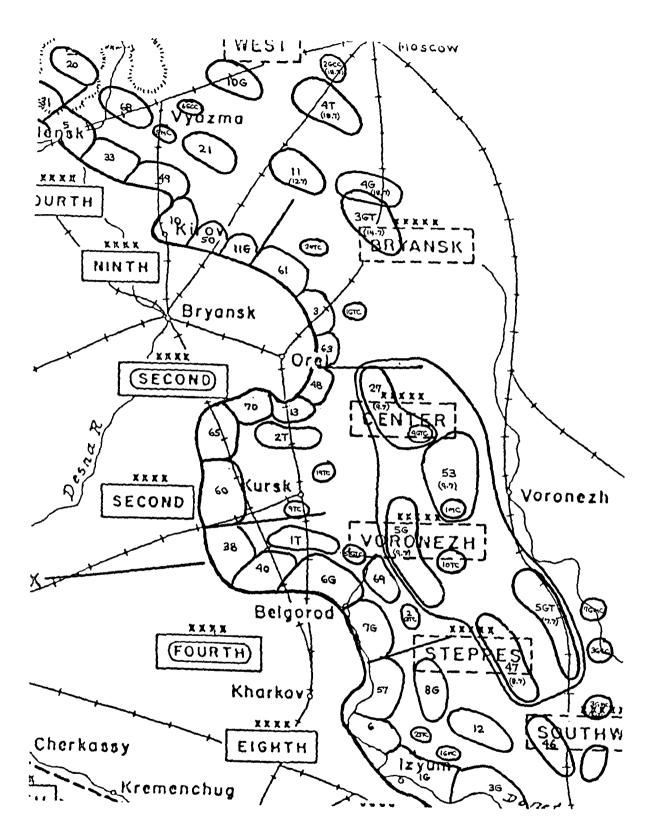


Figure 40. Disposition of Soviet armies along the Western and Southwestern directions, 4 July 1943

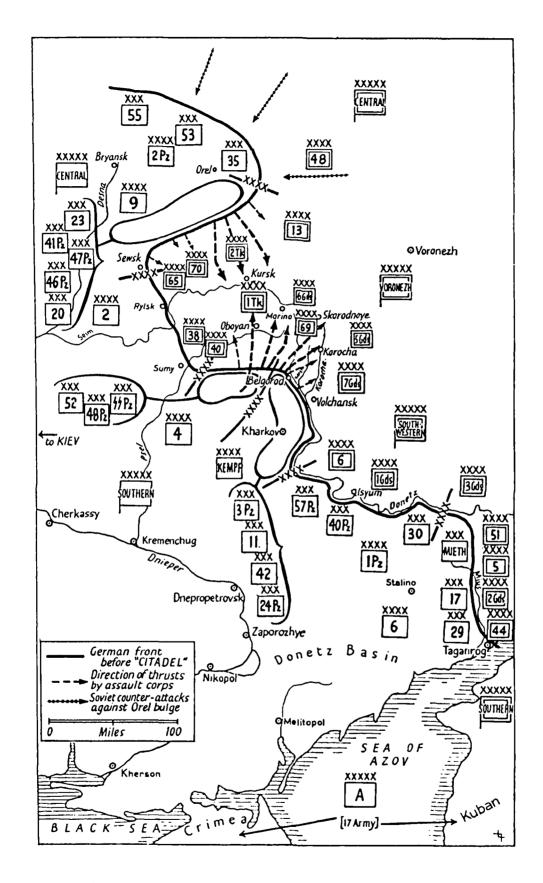


Figure 41. Field Marshal von Manstein's assessment of Kursk

A composite view of actual Soviet dispositions and the armies German intelligence identified and failed to identify provides a clear indication of German intelligence failures and evidence that Soviet dispositions were not unduly affected by advanced warning of a German attack at Kursk (see figure 42). German intelligence failed to detect ten armies, two of which were tank. It held six of these armies to be located in the Northwestern and North Caucasus Front regions. It only tentatively identified 3d Guards Tank Army south of Moscow. Thus, it missed the majority of the Soviet second echelon armies on the Moscow and Izyum-Voronezh axes and much of the Soviet strategic reserves deployed on the southwestern direction. These were the armies which not only halted the German thrust at Kursk but also initiated the strategic counteroffensive across the breadth of the front. This was indicative of similar though greater German failures to detect Soviet reserves in later operations, particularly in the summer campaign of 1944 and the winter campaign of 1945.

Once the German Kursk assault had commenced and the Soviets were convinced of German intentions, then and only then did Soviet armies move toward the sound of the guns. The Steppe Front committed its armies toward Kursk between 7 and 9 July, while the second echelon armies on the Moscow axis moved south between 14 and 18 July to join battle near Orel and Kursk. The legacy of Soviet deception is such that, to this day, most works on Eastern Front operations still do not reflect the realities of Soviet deployments in July 1943.

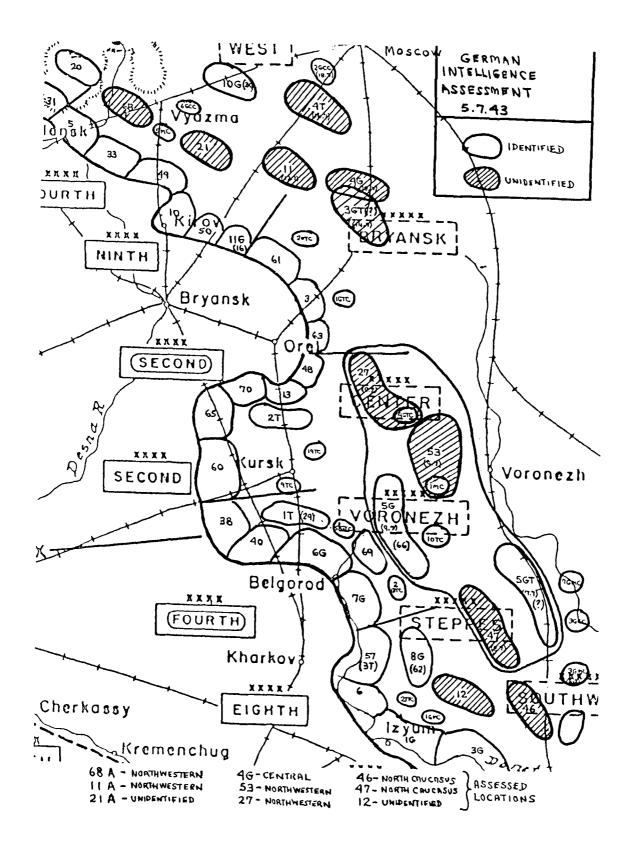


Figure 42. German intelligence assessment, 5 July 1943

Once operations had commenced at Kursk, Soviet intelligence kept close track of German operational reserves as they shifted to meet the mid-July Soviet diversionary assaults in the south. The sequence of Soviet operations unfolded as planned, and German reserves flowed back to the Khar'kov region in mid-August, too late to stem effectively the tide of the Soviet advance. By late August German forces, under extensive pressure across a broad front, were forced to initiate a withdrawal to the Dnepr.

Razvedka, in close concert with deception, played a significant role in the Soviet operation at Kursk. By late April, Soviet intelligence assessments assisted by data from the British were accurate enough for the STAVKA to plan strategic operations incorporating a defensive phase, a significant counteroffensive, and a complex strategic deception plan. Despite the accurate strategic intelligence assessments, the Soviets avoided earlier mistakes by treating the assessments skeptically and by creating powerful defenses on every major potential strategic axis the Germans could employ. Thus, throughout the planning phase, they took into account potential German deception like that which had been so effective in the spring and summer of 1942.

Having created a strategic "safety net," the Soviets focused on operational and tactical <u>razvedka</u> to refine their appreciation of German intentions. These measures, focused primarily on detecting German troop movements, produced the warnings of May and June and, ultimately, of the actual German attack in July. Careful and patient control over strategic reserve units enabled the Soviets to redeploy those forces and

commit them to combat at the most critical times and in the most important sectors. Razvedka thereby detected and helped thwart the German offensive and paved the way for successful counteroffensives.

Simultaneously, <u>razvedka</u> provided requisite information for implementation of an effective strategic deception plan. To a far greater degree than before, the Soviets were able to moniter German troop units in the operational and strategic depths. This increased sophistication in <u>razvedka</u> was absolutely vital for such an equally sophisticated deception plan to succeed. Succeed it did, in large part due to improved Soviet intelligence.

At Kursk the Soviets successfully detected German strategic, operational, and tactical intent, while masking to a considerable degree their own counteroffensive intent. This combination of factors spelled doom for German offensive plans in the summer of 1943 and, more important, ultimately sealed the fate of German fortunes on the Eastern Front as a whole.

Notes

- 1. For an explanation of the war experience analysis system and a verbatum copy of the order mandating its creation, see "Concerning the Soviet Use of War Experience," <u>The Journal of Soviet Military Studies</u>, Vol. I, No. 1 (April 1988), 133-144.
- 2. For example, see "Nekotorye voprosy operativnoi razvedki" [Some questions of operational intelligence], Shornik materialov po izucheniiu opyta voiny No. 8 avgust-oktriabr' 1943 g [Collection of materials for the study of war experience No. 8 August-October 1943], (Moscow: Voenizdat, 1943), 115-124. Classified "secret."
- 3. "Organizatsiia i planirovanie kontrapodgotovki" [Organizing and planning a counter-preparation], Sbornik materialov po izucheniiu opyta voiny No. 9 noiabr'-dekabr' 1943 g [Collection of materials for the study of war experience No. 9 November-December 1943], (Moscow: Voenizdat, 1944), 40-58. Classified "secret."
- 4. R. G. Simonian, "Razvedka" [Intelligence (reconnaissance)], Sovetskaia voennaia entsiklopediia [Soviet military encyclopedial, 8 vols., (Moscow: Voenizdat, 1976-1980), 7:32. Hereafter cited as SVE with appropriate volume.
- 5. For details on pre-war <u>razvedka</u> theory and practice, see David M. Glantz, <u>Soviet Operational Intelligence [Razvedkal to 1943</u>, (Ft. Leavenworth, KS: Soviet Army Studies Office, 1988), 13-53.
- 6. Typical of this view is V. Kulish, "Nachalo voiny: schet k Staliny" [The beginning of war: Stalin's role], Sputnik, No. 10 (October 1988), 128-134.
- 7. Glantz, Soviet Operational Intelligence [Razvedkal to 1943, 104-158.
- 8. Ibid., 174-223.
- 9. For details, see David M. Glantz, <u>Soviet Operational Intelligence</u> [Razvedkal in the Kursk Operation (July 1943), (Ft. Leavenworth, KS: Soviet Army Studies Office, 1988), 54-65.
- 10. "Die Organisation des Sowjet Nachrichtendienstes im Kriege, October 1943" [The Organization of the Soviet Intelligence Service in the War. October 1943], Abteilung Fremde Heere Ost H 3/1850, NAM T-78/677.
- 11. For details, see Glantz, <u>Soviet Operational Intelligence [Razvedkal to 1943</u>, 119-122.
- 12. "Kharacter oborony nemtsev na Demianskom platsdarme" [The nature of German defenses in the Demiansk bridgehead], Sbornik materialov No. 9, 150-165 describes the role of photographic reconnaissance at Demiansk.

NOTES (Continued)

- See also L. Safronov, "Iz opyta fotorazvedka v Velikoi Otechestvennoi voine" [From the experience of photo <u>razvedka</u> in the Great Patriotic Var], <u>Voenno-istoricheskii zhurnal</u> [Military historical journal], No. 5 (May 1979), 20-23. Hereafter cited as <u>VIZh</u>.
- 13. F. L. Kurlat, L. A. Studnikov, "Brigada osobogo naznacheniia" [Special designation brigade], <u>Voprosy istorii</u> [Questions of History], No. 9 (September 1982), 95-104.
- 14. See F. H. Hinsley, <u>British Intelligence in the Second World War</u>, Vol. 2, (New York: Cambridge University Press, 1981), 60, in which Hinsley writes:

There is no truth in the much-publicized claims that the British authorities made use of the "Lucy" ring, a Soviet espionage organization which operated in Switzerland, to forward intelligence to Moscow.

The British did provide the Soviets with Ultra-derived materials, without revealing the source of the data, via the British Military Mission in Moscow. This information did little to improve Soviet performance prior to 1943. After April 1943, the information diminished in volume and importance, and after July 1943 it virtually ceased.

- 15. <u>Yoina v tylu vrage. l v.</u> [War in the enemy rear, Part 1], (Moscow: Izdatel'stvo politicheskoi literatury, 1974), 115. These brigades are also referred to in order of battle data found in the <u>Sbornik</u> materialov.
- 16. S. Kh. Aganov, <u>Izhenernye voiska Sovetskoi armii 1918-1945</u> [Engineer forces of the Soviet Army 1918-1945], (Moscow: Voenizdat, 1985), 460.
- 17. The German G-2 Service in the Russian Campaign (IC Dienst Ost) (Washington, D.C.: Military Intelligence Division, War Department, 22 July 1945), 113.
- 18. V. N. Andrianov, "Partizanskaia razvedka v gody Velikoi Otechestvennoi voiny" [Partisan <u>razvedka</u> in the Great Patriotic War], <u>VIZh</u>, No. 8 (August 1986), 14.
- 19. <u>Tatigkeitsbericht des General das Transport-wesens</u> [Activity Report of the General of the Transportation Organization], H Gr. A. lc vom i November bis 31 Dezember 1944. NAM T-311/274.
- 20. A. Paly, "Radioelektronnaia bor'ba v khode-voiny" [Radio-electronic struggle during warl, <u>VIZh</u>, No. 5 (May 1977), 12; V. Griankin, V. Zmievsky, "Iz istorii radioelektronnoi bor'by" [From the history of radio electronic struggle], <u>VIZh</u>, No. 3 (March 1975), 84.

NOTES (Continued)

- 21. Hinsley, 764-765.
- 22. I. Viazankin, "Sovershenstvovanie organizatsii i vedeniia razvedki boem" [Improvement in the organization and conduct of reconnaissance in force], <u>VIZh</u>, No. 11 (November 1969), 26; P. A. Kurochkin, <u>Obshchevoiskovaia armiia v nastuplenii</u> [The combined arms army on the offensive], (Moscow: Voenizdat, 1966), 67-69.
- 23. M. Sidorov, "Ognevoe porazhenie pri proryve oborony protivnika po opytu Velikoi Otechestvennoi voiny" [Fire destruction during the penetration of an enemy defense based on the experience of the Great Patriotic War], <u>VIZh</u>, No. 8 (August 1984), 18-23.
- 24. E. Kolibernov, "Inzhenernoi obespechenie proryva oborony protivnika po opytu voiny" [Engineer suport in the penetration of an enemy defense based on war experience], <u>VIZh</u>, No. 8 (August 1980), 42-50.
- 25. V. P. Krikunov, "Iz opyta raboty komandyiushchikh i shtabov armii na mestnosti" [From the experience of the work of commanders and staffs on the terrain], <u>VIZh</u>, No. 7 (July 1987), 21-28.
- 26. David M. Glantz, <u>Soviet Military Deception in the Second World War</u>, (London: Frank Cass and Co., 1989), 146-184.
- 27. Glantz, Soviet Operational Intelligence [Razvedkal in the Kursk Operation (July 1943), 161-184.
- 28. Maps derived from PzAOK 2 la, <u>Anlagenband 38 zum KTB</u>, Lage am 1.5.43-27.5.43, NAM T-313/171; PzAOK 4, la, <u>Lagenkarte 4. Pz. Armee</u>, Stand 27.4.43-4.7.43, 2200, NAM T-313/369; PzAOK 1, la, <u>Lagenkarten</u>, Lage 27.4.43-4.7.43, NAM T-313/60; AOK 9, la, <u>Anlage zu KTB</u>, Lage vom 23.5.43-4.7.43, NAM T-312/295, 304.
- 29. Glantz, Soviet Operational Intelligence [Razvedkal in the Kursk Operation (July 1943), 161-184.
- 30. From "Orders pertaining to the "Zitadelle" offensive, 1 May-31 August 1943," PzAOK 1, 44652/6, Chefsachenanlagen zum KTB Nr 11. PzAOK 1, 1a, NAM T-313/60.
- 31. Ibid.
- 32. Personnel strengths in various sectors taken from B. G. Solov'ev, ed., <u>Istorija vtoroj mirovoj vojny 1939-1945 T-7</u> (History of the Second World War 1939-1945 Vol. 7], (Moscow: Voenizdat, 1976), 114, 120, 140, 159, 172, 194, 221, 241, as checked against numerous detailed operational studies. Consideration has been made for armies which shifted sectors during the operations, i.e. 37th Army.

NOTES (Continued)

- 33. Soviet unit locations based on G. A. Koltunov, B. G. Solev'ev, Kurskaia bitva [The battle of Kursk], (Moscow: Voenizdat, 1970), 55-56; A. M. Vasilevsky, A Lifelong Cause, (Moscow: Progress Publishers, 1978), 264, 267, 268; A. S. Zhadov, Chetyre goda yoiny [Four years of war], (Moscow: Voenizdat, 1978), 84-91; A. M. Zvartsev, 3-ia gvardeiskaia tankovaia [3d Guards Tank], (Moscow: Voenizdat, 1982), 61-69; P. A. Rotmistrov, Stal'naia gvardiia [Steel guards], (Moscow: Voenizdat, 1984), 171-181; I. M. Managarov, Y srazhenii za Khar'kov [In the battle for Khar'kov], (Khar'kov: "Prapor," 1978), 50-55; I. F. Vorontsov, N. I. Biriukov, A. F. Smelakev, Ot volzhskikh steppei do avstriiskikh al'p [From the Volga steppes to the Austrian Alps], (Moscow: Voenizdat, 1971), 26-28; V. P. Istomin, Smolenskaia nastupatel'naia operatsiia [The Smolensk offensive operation], (Moscow: Voenizdat, 1975), 6-18; V. I. Chuikov, Gvardeitsy stalingrada idut na zapad [Stalingrad guardsmen advance to the west], (Moscow: Izdatel'stvo "Sovetskaia rossiia," 1972), 52-62; "Dvenadtsataia armiia" [12th Army], SVE, 2:112. These locations have been verified by ex post facto German intelligence maps.
- 34. Field Marshal Erich von Manstein, <u>Lost Victories</u>, (Chicago: Henry Regnery Co., 1958), 444. For contemporary German order of battle assessments of Soviet forces, see Fremde Heere Ost (11c), <u>Übersicht uber Streitkrafte</u>. Fronten, <u>Armeen und Korps der Roten Armee</u>. Gleiderung am 4.4.43, 14.4.43, 24.4.43, 4.5.43, 14.5.43, 24.5.43, 3.6.43, 13.6.43, 23.6.43, 3.7.43, 13.7.43, 23.7.43. NAM T-78/588.